

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listing, of claims in the application:

**Listing of Claims:**

Claim 1 (original): A crystallization method of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride  
which comprises mixing a solution of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in a good  
solvent with an aliphatic hydrocarbon solvent to crystallize said N-carboxylic anhydride,  
the solution of said N-carboxylic anhydride in the good solvent being added to the  
aliphatic hydrocarbon solvent to thereby effect crystallization while inhibiting an oil  
formation and scaling of said N-carboxylic anhydride.

Claim 2 (original): The crystallization method according to Claim 1  
wherein a temperature at addition of the solution of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good  
solvent to the aliphatic hydrocarbon solvent is not higher than 60 °C.

Claim 3 (original): The crystallization method according to Claim 2  
wherein the temperature at addition of the solution of

N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good solvent to the aliphatic hydrocarbon solvent is -30 to 50 °C.

Claim 4 (original): The crystallization method according to Claim 3 wherein the temperature at addition of the solution of N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good solvent to the aliphatic hydrocarbon solvent is -20 to 45 °C.

Claim 5 (original): The crystallization method according to any one of Claims 1 to 4 wherein the aliphatic hydrocarbon solvent is a saturated hydrocarbon of 5 to 12 carbon atoms represented by  $C_nH_{2n+2}$  or  $C_nH_{2n}$  an unsaturated hydrocarbon of 5 to 12 carbon atoms represented by  $C_nH_{2n}$  or  $C_nH_{2n-2}$  or a mixed solvent thereof.

Claim 6 (original): The crystallization method according to Claim 5 wherein the aliphatic hydrocarbon solvent is a saturated hydrocarbon solvent of 5 to 12 carbon atoms represented by  $C_nH_{2n+2}$  or  $C_nH_{2n}$  or a mixed solvent thereof.

Claim 7 (original): The crystallization method according to Claim 6 wherein the aliphatic hydrocarbon solvent is pentane, 2-methylpentane, normal

hexane, isohexane, normal heptane, normal octane, cyclohexane, methylcyclohexane, ethylcyclohexane, propylcyclohexane or a mixed solvent thereof.

Claim 8 (original): The crystallization method according to Claim 7  
wherein the aliphatic hydrocarbon solvent is normal hexane, isohexane, normal heptane, methylcyclohexane or a mixed solvent thereof.

Claim 9 (currently amended): The crystallization method according to Claim 1  
wherein the good solvent is a ~~hydrogenated~~ halogenated hydrocarbon, an ether, a nitrile, an ester, a ketone or a mixed solvent thereof.

Claim 10 (original): The crystallization method according to Claim 9  
wherein the good solvent is dichloromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrahydrofuran, 1,4-dioxane, t-butyl methyl ether, acetonitrile, ethyl acetate, methyl acetate, propyl acetate, isopropyl acetate, butyl acetate, isobutyl acetate, pentyl acetate, methyl propionate, ethyl propionate, acetone, methyl ethyl ketone or a mixed solvent thereof.

Claim 11 (original): The crystallization method according to Claim 9  
wherein the good solvent is a halogenated hydrocarbon, an ether, an ester or a mixed

solvent thereof.

Claim 12 (original): The crystallization method according to Claim 11 wherein the good solvent is dichloromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrahydrofuran, 1,4-dioxane, t-butyl methyl ether, ethyl acetate, methyl acetate, propyl acetate, isopropyl acetate, butyl acetate, isobutyl acetate, pentyl acetate, methyl propionate, ethyl propionate or a mixed solvent thereof.

Claim 13 (original): The crystallization method according to Claim 11 wherein the good solvent is a halogenated hydrocarbon.

Claim 14 (original): The crystallization method according to Claim 13 wherein the good solvent is dichloromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane or a mixed solvent thereof.

Claim 15 (original): The crystallization method according to Claim 14 wherein the good solvent is dichloromethane.

Claim 16 (previously presented): The crystallization method according to Claim 1

wherein the addition of the solution of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good  
solvent is carried out by a sequential addition.

Claim 17 (original): The crystallization method according to Claim 16  
wherein the sequential addition of the solution of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good  
solvent is carried out over not less than 1/4 of an hour.

Claim 18 (previously presented): The crystallization method according to any one  
of Claims 1 to 4

wherein the addition of the solution of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good  
solvent to the aliphatic hydrocarbon solvent is carried out in a condition that a crystal of  
said N-carboxylic anhydride is added to said aliphatic hydrocarbon solvent in advance.

Claim 19 (original): The crystallization method according to Claim 18  
wherein an amount of the crystal of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride to be added in  
advance is not more than 30 weight % based on the total amount of said N-carboxylic

anhydride in the solution in the good solvent to be subsequently added.

Claim 20 (previously presented): The crystallization method according to any one of Claims 1 to 4

wherein the addition of the solution of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good solvent to the aliphatic hydrocarbon solvent is carried out by adding a portion of said solution in the good solvent to said aliphatic hydrocarbon solvent in advance to thereby prepare a slurry in which said N-carboxylic anhydride is precipitated, followed by adding the rest of said solution in a good solvent to said slurry.

Claim 21 (original): The crystallization method according to Claim 20  
wherein an amount of the solution of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good solvent to be added in advance is not more than 30 weight % based on the total amount of the solution in the good solvent to be added.

Claim 22 (previously presented): The crystallization method according to any one of Claims 1 to 4

wherein an amount of a precipitated crystal is increased by adjusting a liquid

temperature to -30 to 25 °C following completion of the addition.

Claim 23 (previously presented): The crystallization method according to any one of Claims 1 to 4

wherein a weight ratio of the good solvent to the aliphatic hydrocarbon solvent at completion of the addition is 0.001 to 1.

Claim 24 (original): The crystallization method according to Claim 23

wherein the weight ratio of the good solvent to the aliphatic hydrocarbon solvent at completion of the addition is 0.003 to 1.

Claim 25 (currently amended): The crystallization method according to any one of Claims 1 to 4

wherein the solution of N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good solvent is

an ~~NCA~~ N-carboxylic anhydride forming reaction solution obtained by reacting N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine with N,N'-carbonyldiimidazole or phosgene or

a solution obtained by subjecting the reaction solution to concentration or solvent exchange.

Claim 26 (currently amended): The crystallization method according to Claim 25 wherein an impurity or a coloring component as the byproduct of the ~~NCA~~ N-carboxylic anhydride forming reaction is removed by using an adsorbent prior to the crystallization.

Claim 27 (currently amended): The crystallization method according to Claim 25 wherein an ~~NCA~~ N-carboxylic anhydride forming reaction solvent doubles as the good solvent for the solution of N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good solvent.

Claim 28 (original): A crystallization method of N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride which comprises adding an aliphatic hydrocarbon solvent to a solution of N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in a good solvent to crystallize said N-carboxylic anhydride, the aliphatic hydrocarbon solvent being added sequentially over not less than 1/4 of an hour and at a temperature of not higher than 60 °C to thereby inhibit an oil formation and scaling of said N-carboxylic anhydride.



Claim 29 (original): The crystallization method according to Claim 28  
wherein a temperature at addition of the aliphatic hydrocarbon solvent to the  
solution of N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in  
the good solvent is -30 to 50 °C.

Claim 30 (original): The crystallization method according to Claim 29  
wherein the temperature at addition of the aliphatic hydrocarbon solvent to the  
solution of N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in  
the good solvent is 0 to 45 °C.

Claim 31 (original): The crystallization method according to any one of Claims 28  
to 30  
wherein the aliphatic hydrocarbon solvent is a saturated hydrocarbon of 5 to 12  
carbon atoms represented by  $C_nH_{2n+2}$  or  $C_nH_{2n}$ , an unsaturated hydrocarbon of 5 to 12  
carbon atoms represented by  $C_nH_{2n}$  or  $C_nH_{2n-2}$ , or a mixed solvent thereof.

Claim 32 (original): The crystallization method according to Claim 31  
wherein the aliphatic hydrocarbon solvent is a saturated hydrocarbon of 5 to 12  
carbon atoms represented by  $C_nH_{2n+2}$  or  $C_nH_{2n}$ , or a mixed solvent thereof.

Claim 33 (original): The crystallization method according to Claim 32 wherein the aliphatic hydrocarbon solvent is pentane, 2-methylpentane, normal hexane, isohexane, normal heptane, normal octane, isooctane, normal decane, cyclopentane, cyclohexane, methylcyclohexane, ethylcyclohexane, propylcyclohexane or a mixed solvent thereof.

Claim 34 (original): The crystallization method according to Claim 33 wherein the aliphatic hydrocarbon solvent is normal hexane, isohexane, normal heptane, isooctane, methylcyclohexane or a mixed solvent thereof.

Claim 35 (previously presented): The crystallization method according to any one of Claims 28 to 30

wherein the good solvent is a halogenated hydrocarbon, an ether, a nitrile, an ester, a ketone or a mixed solvent thereof.

Claim 36 (original): The crystallization method according to Claim 35 wherein the good solvent is a halogenated hydrocarbon, an ether, an ester or a mixed solvent thereof.

Claim 37 (original): The crystallization method according to Claim 36

wherein the good solvent is a halogenated hydrocarbon.

Claim 38 (original): The crystallization method according to Claim 35

wherein the good solvent is dichloromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrahydrofuran, 1,4-dioxane, t-butyl methyl ether, acetonitrile, ethyl acetate, methyl acetate, propyl acetate, isopropyl acetate, butyl acetate, isobutyl acetate, pentyl acetate, methyl propionate, ethyl propionate, acetone, methyl ethyl ketone or a mixed solvent thereof.

Claim 39 (original): The crystallization method according to Claim 36

wherein the good solvent is dichloromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrahydrofuran, 1,4-dioxane, t-butyl methyl ether, ethyl acetate, methyl acetate, propyl acetate, isopropyl acetate, butyl acetate, isobutyl acetate, pentyl acetate, methyl propionate, ethyl propionate or a mixed solvent thereof.

Claim 40 (original): The crystallization method according to Claim 37

wherein the good solvent is dichloromethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane or a mixed solvent thereof.

Claim 41 (original): The crystallization method according to Claim 40  
wherein the good solvent is dichloromethane.

Claim 42 (previously presented): The crystallization method according to any one  
of Claims 28 to 30

wherein the addition of the aliphatic hydrocarbon solvent to the solution of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good  
solvent is carried out under stirring with a stirring force corresponding to a stirring power  
requirement of not less than  $0.1 \text{ kW/m}^3$ .

Claim 43 (original): The crystallization method according to Claim 42  
wherein the addition of the aliphatic hydrocarbon solvent to the solution of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good  
solvent is carried out under stirring with the stirring force corresponding to the stirring  
power requirement of not less than  $0.3 \text{ kW/m}^3$ .

Claim 44 (previously presented): The crystallization method according to any one  
of Claims 28 to 30

wherein the addition of the aliphatic hydrocarbon solvent to the solution of  
N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good

solvent is carried out by preparing a slurry of said N-carboxylic anhydride in advance and adding the aliphatic hydrocarbon solvent sequentially to said slurry.

Claim 45 (original): The crystallization method according to Claim 44 wherein a suspension amount of the slurry of said N-carboxylic anhydride to be prepared in advance is not more than 30 weight % based on the total amount of said N-carboxylic anhydride at completion of the crystallization.

Claim 46 (previously presented): The crystallization method according to Claim 44 wherein the preparation of the slurry is carried out by sequential addition of the aliphatic hydrocarbon solvent to the solution of said N-carboxylic anhydride in the good solvent and/or by addition of a crystal of said N-carboxylic anhydride to the solution of said N-carboxylic anhydride in the good solvent.

Claim 47 (original): The crystallization method according to Claim 46 wherein the aliphatic hydrocarbon solvent is added to the solution in the good solvent in such a proportion that a weight ratio of the good solvent to the aliphatic hydrocarbon solvent is 0.1 to 10 at a preliminary crystallization.

Claim 48 (previously presented): The crystallization method according to any one

of Claims 28 to 30

wherein the weight ratio of the good solvent to the aliphatic hydrocarbon solvent is 0.001 to 1 at completion of the addition.

Claim 49 (original): The crystallization method according to Claim 48

wherein the weight ratio of the good solvent to the aliphatic hydrocarbon solvent is 0.003 to 0.8 at completion of the addition.

Claim 50 (previously presented): The crystallization method according to any one of Claims 28 to 30

wherein an amount of a precipitated crystal is increased by adjusting a liquid temperature to -30 to 25 °C following completion of the addition.

Claim 51 (currently amended): The crystallization method according to any one of Claims 28 to 30

wherein the solution of N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good solvent is

an ~~NCA~~ N-carboxylic anhydride forming reaction solution obtained by reacting N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine with N,N'-carbonyldiimidazole or phosgene or

a solution obtained by subjecting the reaction solution to concentration or solvent exchange.

Claim 52 (currently amended): The crystallization method according to Claim 51 wherein an impurity or a coloring component as a byproduct of the ~~NCA~~ N-carboxylic anhydride forming reaction is removed by using an adsorbent prior to the crystallization.

Claim 53 (currently amended): The crystallization method according to Claim 51 wherein an ~~NCA~~ N-carboxylic anhydride forming reaction solvent doubles as the good solvent for the solution of N-(1(S)-ethoxycarbonyl-3-phenylpropyl)-L-alanine N-carboxylic anhydride in the good solvent.